

ABSTRACT

Please delete the abstract of record and replace with the following abstract:

An alignment system for a lithographic apparatus includes a detection system arranged in a path of at least a portion of an alignment radiation. The alignment system also includes a position determining unit in communication with the detection system. The position determining unit is adapted to measure a position of at least one alignment mark on a substrate. The substrate is overlaid with a layer of deposited material. A calculating unit is coupled to the position determining unit. The calculating unit calculates a corrected position of the alignment mark on the basis of the position of the at least one alignment mark being measured and a model of a process apparatus involved in a deposition of the layer of deposited material. The model taking into account an amount of deposition of the layer of deposited material.